EXHIBIT 3

Version 2.5.2.0

Abstract

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Grant Number: 1R01AI028175-01

Project Title: CHARACTERIZATION OF THREE NEW T LYMPHOCYTE-SPECIFIC GENE

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Abstract: *We have developed a protocol which allowed us to isolated broad representation of T-lymphocyte subset-specific cDNAs, and applied the method to the analysis of ConA-stimulated cloned Th and CTL cDNA libraries. Sixteen previously unrecognized T cell specific genes have been isolated, in addition to seven known T- cell genes. Three of the sixteen genes were expressed in both Th and CTL, seven were expressed in only Th and six only in CTL. The 16 genes were further characterized according to the expression pattern after treatment with ConA-, IL-2, T-cell receptor antibody or cyclosporin A. Nuclotide sequence analyses identified five of these genes as corresponding to recently described genes of known and unknown functions. The objective of the present proposal is to demonstrate the functions of three of the above genes which were selected because they are inducible by ConA preferentially in Th and appear to represent new soluble T-cell mediators. The strategy will be to prepare antibodies to each of the gene products which recognize the corresponding native proteins using oligopeptides or E. coli recombinant proteins as antigens. Next, the gene products will be produced in the purified from eukaryotic expression systems, which may simulate closely the natural product. The antibodies specific to each of the three cDNA products and the purified recombinant proteins will then be utilized to determine the biologic function(s) of each gene product. The investigations planned include receptor binding studies to identify which cells carry receptors to these molecules, and to demonstrate their functions using various immunological assays. To supplement the in vitro immunological assays, mouse mutants with various immunological disorders will be screened by the cDNA probes to identify if such mutants carry abnormalities of the corresponding genes. A long term objective is to identify the human homologue of each of the molecules and to seek clinical applications for human immunodeficiency and other diseases such as human malignancies and AIDS. The present investigation could present a model study for the demonstration of functions and a clinical applications of unknown molecules that have been identified at the nucleic acid level.*

Public Health Relevance:
This Public Health Relevance is not available.

Thesaurus Terms:

BLOOD CELLS, KILLER CELLS (ANTIBODY-DEPENDENT), BLOOD CELLS, T LYMPHOCYTES, BLOOD CELLS, T LYMPHOCYTES, HELPER, GENETICS, CYTOGENETICS, IMMUNITY, CELLULAR, CELL-MEDIATED IMMUNE RESPONSES, IMMUNOGENETICS, HISTOCOMPATIBILITY GENES, IMMUNE RESPONSE GENES, NUCLEIC ACIDS STRUCTURE, NUCLEOSIDES (TIDES) SEQUENCE ANTIBIOTICS, CYCLOSPORIN A, CELL DESTRUCTION, CYTOLYSIS, CELL TYPES, GENETIC DISORDERS (SEE ALSO APPROPRIATE CONGENITAL ABNORMALITIES), GENETIC DISORDERS, CHROMOSOME ABNORMALITIES, GENETICS, BIOCHEMICAL GENETICS, MOLECULAR CLONING, GENETICS, GENES, GENE EXPRESSION, GENETICS, GENETIC LIBRARIES, GENETICS, MUTATION, MUTANTS, GENETICS, RECOMBINATION, IMMUNITY, CYTOKINES, LYMPHOKINES, INTERLEUKIN 2, IMMUNITY, CYTOKINES, LYMPHOKINES, LYMPHOCYTE TRANSFORMING FACTORS, IMMUNOLOGY, ANTIBODY FORMATION, IMMUNOLOGY, ANTIBODY SPECIFICITY, IMMUNOLOGY, ANTIGENS BACTERIAL, IMMUNOPATHOLOGY, AUTOIMMUNE DISORDERS, NUCLEIC ACIDS, COMPLEMENTARY DNA, NUCLEIC ACIDS, MRNA, PEPTIDES, OLIGOPEPTIDES, PROTEIN (PEPTIDE) SEQUENCE, PROTEINS, BACTERIAL PROTEINS, PROTEINS, BINDING PROTEINS, DNA-BINDING PROTEINS, PROTEINS, BINDING PROTEINS, LECTINS PLANT, CONCANAVALIN-A, RECEPTORS, ANTIBODY RECEPTORS, genetic mapping ANIMALS, CHORDATES, MAMMALS, RODENTS, MYOMORPHA, MICE (LABORATORY), BACTERIA, ENTEROBACTERIACEAE, ESCHERICHIA COLI, MODELS, DISEASE MODELS, NUCLEIC ACIDS, NUCLEIC ACID PROBES

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